

### **IN THE SPECIFICATION:**

Please amend the specification as follows.

Please replace paragraph [0025] with the following replacement paragraph:

It is noted that each coupling element 110 may be reactive lumped elements, for example, resistors, capacitors, and/or inductors. They may also be distributed components, for example, small sections of transmission lines. Similarly, the shunt elements 120 may also be reactive lumped elements or small section transmission lines. Each coupling element 110 and shunt element 120 may be either resonant or non-resonant. Use of resonant or non-resonant elements depends on a particular electrical circuit, e.g., filter implementation and desired electrical characteristics sought. For example, [[a]] many bandpass filter designs use shunted short-circuited transmission line resonators that capacitively couple together.

Please replace paragraph [0026] with the following replacement paragraph:

As previously mentioned, electrical circuits constructed like the conventional ladder network electrical circuit 100 are sensitive to slight variations in element values. Small deviations in the element values, for example, as a result of mechanical tolerances in a manufacturing process, can degrade the electrical characteristics of the circuit. Hence, it may be advantageous to adjust the electrical characteristics so that a single network can be used for multiple functions, for example, tuning after manufacturing or during operation.

Please replace paragraph [0027] with the following replacement paragraph:

Figure 2 is a circuit diagram of a tunable capacitive bridge 210 coupled with an electrical circuit, e.g., a ladder network, in accordance with one embodiment of the present invention. In the illustrated embodiment, the tunable capacitive bridge 210 couples with a portion of the conventional ladder network electrical circuit 100 previously described. Specifically, the first end (e.g., terminal, node, or lead) of the tunable capacitive bridge (or “pi network”) 210 couples with a first end of the first coupling element 110a and the first

shunt element 120a, which also couples with ground. A second end (e.g., a terminal, node or lead) of the tunable capacitive bridge 210 couples with a second end of the first coupling element 110a and the second shunt element 120b, which also couples with ground.

Please replace paragraph [0028] with the following replacement paragraph:

The tunable capacitive bridge 210 includes a first tunable variable capacitor  $[(C_1)]$   $(C_2)$  215, a second tunable variable capacitor  $[(C_2)]$   $(C_1)$  220, and a third tunable variable capacitor  $(C_3)$  225. Each tunable variable capacitor has a capacitance that can be tuned with a direct current ("DC") bias that is applied across each tunable variable capacitor individually. It is noted that a biasing circuit (not shown in Figure 2) for use with the tunable capacitive bridge 210 is a conventional biasing circuit.

Please replace paragraph [0029] with the following replacement paragraph:

As an example, the first tunable variable capacitor  $[(C_1)]$   $C_2$  provides capacitance in parallel with the first coupling element 110a. By voltage-tuning capacitor  $[(C_1)]$   $C_2$ , the total impedance of the coupling element 110a is proportionally changed. The second tunable capacitor  $[(C_2)]$   $C_1$  and the third tunable capacitor  $C_3$  provide an additional capacitance in parallel with the first shunt ~~filter~~ element 120a and the second shunt ~~filter~~ element 120b. By voltage-tuning the tunable variable capacitors  $[(C_2)]$   $C_1$  and  $C_3$ , the total impedance of the shunt elements 120a, 120b is proportionally changed.

Please replace paragraph [0039] with the following replacement paragraph:

Similarly, the third tunable capacitance group, e.g., between nodes 2 and 3, includes a fifth tunable capacitor 425a, a sixth tunable capacitor 425b, and a biasing circuit of node 6. The biasing circuit of node 6 includes a biasing resistor,  $R_{b6}$ , and a node  $[[to]]$  for application of a biasing voltage,  $V_{b6}$ . The fifth tunable capacitor 425a couples with node 2 and the biasing circuit of node 6. The second tunable capacitor 425b couples with node 3 and the biasing circuit of node 6.